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SECONDARY BATTERIES.—J. Rousse.—In order to accumulate electricity for the production of light or motive power, the author has arranged secondary batteries, which differ from those of M. G. Plant. At the negative pole he uses a sheet of palladium, which, during the electrolysis, absorbs more than 900 times its volume of hydrogen. At the positive pole he uses a sheet of lead. The electrolysed liquid is sulphuric acid at 1-10th. This element is very powerful, even when of small dimensions. Another secondary element which has also given good results, is formed at the negative pole of a slender plate of sheet-iron. This plate absorbs more than 200 times its volume of hydrogen when electrolysed in a solution of ammonium sulphate. The positive pole is formed of a plate of lead, pure or covered with a stuatum of litharge, or pure oixide, or all these substances mixed. These metallic plates are immersed in a solution containing 50 per cent of ammonium sulphate. Another arrangement is at the negative pole, sheet-iron ; at the positive pole a cylinder of ferro-manganese. The electrolysed liquid contains 40 per cent ammonium sulphate.

CONSTITUTION OF THE MILKY WAY.—When the milky way is regarded with an indifferent eye, it seems that its brightness is the same in all parts. But it is quite otherwise when the relative luminous intensity of its different portions is measured. It is then found that the milky way is composed of a series of luminous plates separated from each other by darker portions. Thirty-three of these nodules have been counted, the centre of which is more brilliant than the borders, and it is stated that they are arranged nearly mathematically along a great circle of the celestial sphere.

AN EXPLANATION.

To the Editor of " SCIENCE."

DEAR SIR,—In giving the specific rotatory power in my article " Amylose" in SCIENCE of Oct. 1st this year, I used the expression (a) to designate the specified rotatory power for the *teinte de passage* since that is the usual ray employed. On the other hand I used (a)j to designate the same property for the yellow ray, meaning by the yellow ray the monochromatic sodium flame.

Since, however, it is the usual custom to designate the " rose-purple " transition tint by (a)j as if it were a yellow ray and the sodium ray by (a) D, I desire to make this explanation of the symbols used.

Respectfully,

H. W. WILEY.

LAFAYETTE, IND., *Nov.* 5, 1881.

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OBSERVATIONS AND RESEARCHES ON BLOOD-STAINS.—D.Vitaci—Attention has been recently called to a reaction discovered by Schœbein—the blue coloration produced by a mixture of oil of turpentine and alcoholic tincture of the resin of guiacum, on the additionof a little blood or a very dilute solution of hæmoglobin. It is said that this reaction is preferable to any other, not excepting that founded on the formation of crystals of hæmine and on spectroscopic observation, and that none of the substances capable of simulating blood-spots give the same opaque blue color. The author, however, shows that all substances capable of acting as direct or indirect oxidising agents are capable of producing the same reaction.

METEOROLOGICAL REPORT FOR NEW YORK CITY FOR THE WEEK ENDING NOV. 12, 1881.

Latitude 40° 45′ 58″ N.; Longitude 73° 57′ 58″ W.; height of instruments above the ground, 53 feet ; above the sea, 97 feet ; by self-recording instruments.

NOVEMBER.	BAROMETER. MEAN FOR THE DAY.	BAROMETER. MAXIMUM.		BAROMETER. MINIMUM.	
	Reduced to Freezing.	Reduced to Freezing.	Time.	Reduced to Freezing.	Time.
Sunday, 6	30.151	30.302	12 p. m.	29.988	0 a. m.
Monday, 7	30.315	30.400	9 a. m.	30.252	12 p. m.
Tuesday, 8	30.145	30.252	0 a. m.	30.100	12 p. m.
Wednesday, 9	30.008	30.112	12 p. m.	29.910	4 p. m.
Thursday, 10	30.245	30.296	12 p. m.	30.112	0 a. m.
Friday, 11	30.319	30.394	9 a. m.	30.222	12 p. m.
Saturday, 12	29.801	30.222	0 a. m.	29.548	12 p. m.

NOVEMBER.	THERMOMETERS. MEAN.		THERMOMETERS. MAXIMUM.				THERMOMETERS. MINIMUM.				MAXI'M
	Dry Bulb.	Wet Bulb.	Dry Bulb.	Time.	Wet Bulb.	Time.	Dry Bulb.	Time.	Wet Bulb.	Time.	In Sun.
Sunday, 6	52.3	48.3	60	3 p. m.	52	3 p. m.	46	12 p. m.	43	12 p. m.	112.
Monday, 7	47.6	46.0	51	5 p. m.	50	12 p. m.	42	7 a. m.	42	7 a. m.	56.
Tuesday, 8	58.0	57.6	62	4 p. m.	61	4 p. m.	50	0 a. m.	49	0 a. m.	68.
Wednesday, 9	62.3	60.0	68	3 p. m.	65	3 p. m.	54	12 p. m.	49	12 p. m.	80.
Thursday, 10	46.7	43.3	51	2 p. m.	45	2 p. m.	43	12 p. m.	40	12 p. m.	110.
Friday, 11	42.3	39.0	46	3 p. m.	41	3 p. m.	39	8 a. m.	37	10 a. m.	111.
Saturday, 12	51.3	50.0	60	8 p. m.	59	8 p. m.	42	2 a. m.	38	2 a. m.	62.

Mean for the week .... 30.140 inches.
Maximum for the week at 9 a. m., Nov. 7th .... 30.400 "
Minimum " at 12 p. m., Nov. 12th .... 29.548 "
Range .... .852 "

		Dry.			Wet.	
Mean for the week	....	51.5	degrees	....	49.1	degrees
Maximum for the week	at 3 pm. 9th	68.	"	at 3 pm 9th,	65.	"
Minimum "	" 8 am. 11th	39.	"	at 10 am 11th,	37.	"
Range "	" ---- ----	29.	"	....	28.	"

NOVEMBER.	WIND. DIRECTION.			WIND. VELOCITY IN MILES.	WIND. FORCE IN LBS. PER SQR. FEET.		HYGROMETER. FORCE OF VAPOR.			HYGROMETER. RELATIVE HUMIDITY.			CLOUDS. CLEAR, 0 OVERCAST. 10			RAIN AND SNOW. DEPTH OF RAIN AND SNOW IN INCHES.				OZONE.
	7 a. m.	2 p. m.	9 p. m.	Distance for the Day.	Max.	Time.	7 a. m.	2 p. m.	9 p. m.	7 a. m.	2 p. m.	9 p. m.	7 a. m	2 p. m.	9 p. m.	Time of Beginning.	Time of Ending.	Duration. h. m.	Amount of water	0 10
Sunday, 6	w.	n. w.	n. e.	188	5	1.00 am	.310	.269	.283	92	54	78	0	0	0	-----	----	-----	--	3
Monday, 7	n. e.	e. n. e.	e.	155	2½	5.00 pm	.267	.283	.321	100	78	86	8 cu.	9 cu.	10	7 pm	12 pm	5.00	.04	0
Tuesday, 8	n. e.	s. e.	s. s. e.	107	1½	0.15 am	.418	.505	.487	100	94	94	10	10	10	4 am 3 pm	8 am 5 pm	4.00 2.00	.10 .10	10
Wednesday, 9	s. s. e.	w. s. w.	n. w.	154	4¾	10.00 pm	.487	.577	.409	94	84	82	10	9 cu.	8 cu.	4 am 4 pm	11 am 6 pm	7.00 2.00	.13 .02	6
Thursday, 10	w. n. w.	n. w.	n. w.	273	7¾	1.30 am	.275	.220	.218	92	59	75	1 cir.	7 cir. cu.	4 cir. cu.	-----	-----	-----	--	0
Friday, 11	n. n. w.	n. w.	e.	177	3¼	0.00 am	.216	.173	.195	90	60	68	3 cir. cu.	1 cir. s.	5 cu.	-----	-----	-----	--	2
Saturday, 12	e. s. e.	s. e.	w. s. w.	134	6¾	6.00 pm	.231	.348	.487	83	93	94	10	10	10	10½ am	11 pm	12.30	.65	1

Distance traveled during the week .... 1,188 miles.
Maximum force .... 7¾ lbs.

Total amount of water for the week .... 1.04 inch.
Duration of rain .... 1 day, 8 hours, 30 minutes.

DANIEL DRAPER, Ph. D.

Director Meteorologica Observatory of the Department of Public Parks, New York.